

REMARKS

Claims 1-11, 22, 25-28 and 35-37 were pending in the application at the time of examination. In this amendment, Claims 1, 6, 8, 10, 35 and 37 have been amended. Claim 36 has been canceled without prejudice. Accordingly, Claims 1-11, 22, 25-28, 35, and 37 are pending in the application.

Claims 1-7, 9-11 and 35 are patentable over Posa.

Regarding Posa, the Examiner states:

A gas manifold 100 (Fig. 2) is attached to the semiconductor processing unit and **it includes within it plural manifolds including a gas supply manifold 116 for to supply gas to process chamber 16**, and gas vent manifolds 115 and 122 to supply gas to vent chamber 18. (Office Action, page 2, emphasis added.)

The Examiner's statement is respectfully traversed. Posa teaches:

A plurality of bellows switching valve 102, 104 are mounted in the linear **manifold 100**. ... The member 112 switches the reactive gas flow between a first outlet to a **vent path 115** and vent chamber 18 and a second outlet to a **process path 116**. (col. 5, line 61 to col. 6, line 2, emphasis added.)

Thus, in contrast to the Examiner's statement that Posa teaches "**a gas supply manifold 116**", Posa teaches a process **path 116**. Applicant respectfully submits that Posa clearly distinguishes between a manifold and a process path and demonstrates that one of skill in the art would not view these as equivalent.

Nevertheless, to expedite prosecution, Claim 1 has been amended for purposes of clarity and now recites:

A gas flow control system for a semiconductor processing unit comprising:

a first mass flow controller located at a first location;
a support structure located at said semiconductor processing unit;
a gas manifold located at said support structure;
and
a first gas manifold inlet valve located at said support structure and coupled between said gas manifold and said first mass flow controller, wherein said gas manifold and said first gas manifold inlet valve are located directly adjacent said semiconductor processing unit and at a second location separate and removed from said first location; and
a process gas supply line coupled to an outlet port of said gas manifold. (Emphasis added.)

Applicant respectfully submits that the Examiner has failed to call out where Posa teaches or suggests a gas flow control system as recited in Claim 1. Accordingly, Claim 1 is allowable over Posa. Claims 2-7, 9, which depend from Claim 1, are allowable for at least the same reasons as Claim 1.

For similar reasons, Posa does not teach or suggest:

A system comprising:
a semiconductor processing reactor;
a gas manifold;
a first process gas source located at a first location;
a first regulator coupled to said first process gas source, said first regulator located at said first location;
a first gas manifold inlet valve coupled between said first regulator and said gas manifold, wherein said gas manifold and said first gas manifold inlet valve are located as close as physically possible to said semiconductor processing reactor and at a second location separate and removed from said first location;
a second process gas source located at said first location;
a second regulator coupled to said second process gas source, said second regulator located at said first location;
a second gas manifold inlet valve coupled between said second regulator and said gas manifold, said second gas manifold inlet valve located as close as physically possible to said semiconductor processing reactor and at said second location; and

a process gas supply line coupled to an outlet port of said gas manifold,

as recited in amended Claim 10, emphasis added. Accordingly, Claim 10 is allowable over Posa. Claim 11, which depends from Claim 10, is allowable for at least the same reasons as Claim 10.

For similar reasons, Posa does not teach or suggest:

A gas flow control system for a semiconductor processing unit comprising:

a first process gas source located at a first location;

a first mass flow controller located at said first location and coupled to said first process gas source;

a support structure located at said semiconductor processing unit;

a gas manifold attached to said support structure;

a process gas supply line coupled to an outlet port of said gas manifold;

a first gas manifold inlet valve attached to said support structure and coupled between said gas manifold and said first mass flow controller;

a second process gas source located at said first location;

a second mass flow controller located at said first location and coupled to said second process gas source; and

a second gas manifold inlet valve attached to said support structure and coupled between said gas manifold and said second mass flow controller,

wherein said gas manifold, said first gas manifold inlet valve and said second gas manifold inlet valve are located at a second location separate and removed from said first location, a first process gas from said first process gas source and a second process gas from said second process gas source mixing in said gas manifold,

as recited in amended Claim 35, emphasis added. Accordingly, Claim 35 is allowable over Posa.

For the above reasons, Applicant respectfully request reconsideration and withdrawal this rejection.

Claim 8 is patentable over Posa taken in view of Laxman.

For reasons similar to those discussed above regarding Claim 1, Posa does not teach or suggest:

A gas flow control system for a semiconductor processing unit comprising:
a first mass flow controller located at a first location;
a support structure located at said semiconductor processing unit;
a gas manifold located at said support structure;
a first gas manifold inlet valve located at said support structure and coupled between said gas manifold and said first mass flow controller, wherein said gas manifold and said first gas manifold inlet valve are located at a second location separate and removed from said first location;
a gas cabinet, said first mass flow controller being located in said gas cabinet; and
a process gas supply line coupled to an outlet port of said gas manifold,

as recited in amended Claim 8, emphasis added. Accordingly, Claim 8 is allowable over Posa. Laxman does not cure this deficiency in Posa. Accordingly, Claim 8 is allowable over Posa taken in view of Laxman.

For the above reasons, Applicant respectfully requests reconsideration and withdrawal of this rejection

Claim 37 allowable.

The Examiner states:

Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. (Office Action, page 4.)

Claim 37 has been rewritten in independent form and to include the features of base Claim 36. Accordingly, Claim 37 is allowable.

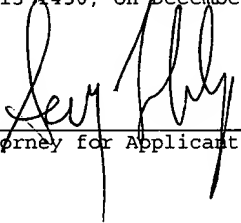
For the above reasons, Applicant respectfully requests reconsideration and withdrawal of this objection.

Conclusion

Claims 1-11, 22, 25-28, 35, and 37 are pending in the application. For the foregoing reasons, Applicant respectfully requests allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicant(s).

CERTIFICATE OF MAILING

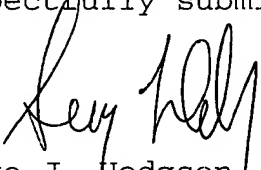
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 8, 2003.



Attorney for Applicant(s)

December 8, 2003
Date of Signature

Respectfully submitted,


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